

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (TVO-435-25)

No. of Engines 1 Engine Rating 270 HP

Minimum Take-Off Weight 2.35 k-lb

Maximum Take-Off Weight Peace-Time 2.95 k-lb

Maximum Take-Off Weight War-Time 2.95 k-lb

Maximum Landing Weight 2.95 k-lb

Hover Ceiling (In Ground Effect) 16,000 ft

Hover Ceiling (Out of Ground Effect) 10,500 ft

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-482. Bell 47G-3B (TH-13T), Sioux

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (VO-435)

No. of Engines 1 Engine Rating 265 HP

Minimum Take-Off Weight 1.93 k-lb

Maximum Take-Off Weight Peace-Time 2.85 k-lb

Maximum Take-Off Weight War-Time 2.85 k-lb

Maximum Landing Weight 2.85 k-lb

Hover Ceiling (In Ground Effect) 5,900 ft

Hover Ceiling (Out of Ground Effect) 1,350 ft

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
				Ultra				Very
	High	Medium	Low	Low	High	Medium	Low	Low
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-483. Bell 47G-5A

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-11)

No. of Engines 1 Engine Rating 1100 SHP

Minimum Take-Off Weight 5.79 k-lb

Maximum Take-Off Weight Peace-Time 8.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 16,800 ft
(At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) 12,700 ft
(At 9.5 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
Weight	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-484. Bell 204 (UH-1B), Iroquois

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-11)

No. of Engines 1 Engine Rating 1100 SHP

Minimum Take-Off Weight 6.49 k-lb

Maximum Take-Off Weight Peace-Time 8.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 10,600 ft
(At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) 10,000 ft
(At 9.5 k-lb)

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-485. Bell 204 (UH-1C), Iroquois

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 6.6 k-lb

Maximum Take-Off Weight Peace-Time 8.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 10,400 ft
(At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) 7,400 ft
(At 9.5 k-lb)

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-486. Bell 204 (UH-1M), Iroquois

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-11)

No. of Engines 1 Engine Rating 1100 SHP

Minimum Take-Off Weight 6.23 k-lb

Maximum Take-Off Weight Peace-Time 9.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 18,200 ft

Hover Ceiling (Out of Ground Effect) 14,000 ft

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-487. Bell 205 (UH-1D), Iroquois

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 5.96 k-lb

Maximum Take-Off Weight Peace-Time 9.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 13,600 ft

Hover Ceiling (Out of Ground Effect) 1,100 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
Weight	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-488. Bell 205 (UH-1H), Iroquois

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 5.91 k-lb

Maximum Take-Off Weight Peace-Time 9.5 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 10,400 ft

Hover Ceiling (Out of Ground Effect) 6,000 ft

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-489. Bell 205A-1

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (T63-A-700)

No. of Engines 1 Engine Rating 317 SHP

Minimum Take-Off Weight 2.31 k-lb

Maximum Take-Off Weight Peace-Time 3.0 k-lb

Maximum Take-Off Weight War-Time 3.0 k-lb

Maximum Landing Weight 3.0 k-lb

Hover Ceiling (In Ground Effect) 13,600 ft

Hover Ceiling (Out of Ground Effect) 8,800 ft

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-490. Bell 206A (OH-58A), Kiowa

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (T63-A-720)

No. of Engines 1 Engine Rating 420 SHP

Minimum Take-Off Weight 2.43 k-lb

Maximum Take-Off Weight Peace-Time 3.2 k-lb

Maximum Take-Off Weight War-Time 3.2 k-lb

Maximum Landing Weight 3.2 k-lb

Hover Ceiling (In Ground Effect) 13,200 ft

Hover Ceiling (Out of Ground Effect) 9,700 ft

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-491. Bell 206A (OH-58C), Kiowa

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (250-C20J)

No. of Engines 1 Engine Rating 420 SHP

Minimum Take-Off Weight 2.15 k-lb

Maximum Take-Off Weight Peace-Time 3.2 k-lb

Maximum Take-Off Weight War-Time 3.2 k-lb

Maximum Landing Weight 3.2 k-lb

Hover Ceiling (In Ground Effect) 12,800 ft

Hover Ceiling (Out of Ground Effect) 8,800 ft

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
Weight	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-492. Bell 306B, Jet Ranger 3

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Allison (250-C30P)

No. of Engines 1 Engine Rating 650 SHP

Minimum Take-Off Weight 2.75 k-lb

Maximum Take-Off Weight Peace-Time 4.15 k-lb

Maximum Take-Off Weight War-Time 4.15 k-lb

Maximum Landing Weight 4.15 k-lb

Hover Ceiling (In Ground Effect) 16,500 ft

Hover Ceiling (Out of Ground Effect) 5,400 ft

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-493. Bell 306L-3, Long Ranger 3

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-13)

No. of Engines 1 Engine Rating 1400 SHP

Minimum Take-Off Weight 6.62 k-lb

Maximum Take-Off Weight Peace-Time 9.41 k-lb

Maximum Take-Off Weight War-Time 9.5 k-lb

Maximum Landing Weight 9.5 k-lb

Hover Ceiling (In Ground Effect) 9,900 ft
(At 9.5 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-494. Bell 209 (AH-1G), Cobra

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-703)

No. of Engines 1 Engine Rating 1485 SHP

Minimum Take-Off Weight 6.95 k-lb

Maximum Take-Off Weight Peace-Time 9.98 k-lb

Maximum Take-Off Weight War-Time 10.0 k-lb

Maximum Landing Weight 10.0 k-lb

Hover Ceiling (In Ground Effect) 12,200 ft
(At 10.0 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-495. Bell 209 [AH-1S (Production)], Cobra

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-703)

No. of Engines 1 Engine Rating 1485 SHP

Minimum Take-Off Weight 7.05 k-lb

Maximum Take-Off Weight Peace-Time 9.98 k-lb

Maximum Take-Off Weight War-Time 10.0 k-lb

Maximum Landing Weight 10.0 k-lb

Hover Ceiling (In Ground Effect) 12,200 ft
(At 10.0 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
Weight	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-496. Bell 209 [AH-1S (ECAS)], Uppun Cobra

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Avco Lycoming (T53-L-703)

No. of Engines 1 Engine Rating 1485 SHP

Minimum Take-Off Weight 7.07 k-lb

Maximum Take-Off Weight Peace-Time 9.98 k-lb

Maximum Take-Off Weight War-Time 10.0 k-lb

Maximum Landing Weight 10.0 k-lb

Hover Ceiling (In Ground Effect) 12,200 ft
(At 10.0 k-lb)

Hover Ceiling (Out of Ground Effect) †

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-497. Bell 209 [AH-1S (Modernized)], Mod. Cobra

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6T-3B)

No. of Engines 2 Engine Rating 1800 SHP

Minimum Take-Off Weight 6.88 k-lb

Maximum Take-Off Weight Peace-Time 11.2 k-lb

Maximum Take-Off Weight War-Time 11.2 k-lb

Maximum Landing Weight 11.2 k-lb

Hover Ceiling (In Ground Effect) 11,000 ft

Hover Ceiling (Out of Ground Effect) 4,900 ft

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-498. Bell 212 (UH-1N), Twin Huey

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Pratt and Whitney Canada (PT6T-3B)

No. of Engines 2 Engine Rating 1800 SHP

Minimum Take-Off Weight 6.88 k-lb

Maximum Take-Off Weight Peace-Time 11.2 k-lb

Maximum Take-Off Weight War-Time 11.2 k-lb

Maximum Landing Weight 11.2 k-lb

Hover Ceiling (In Ground Effect) 11,000 ft

Hover Ceiling (Out of Ground Effect) 4,900 ft

ACN

Weight	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-499. Bell 212

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer Lycoming (T5508D)

No. of Engines 1 Engine Rating 2930 SHP

Minimum Take-Off Weight †

Maximum Take-Off Weight Peace-Time 13.8 k-lb

Maximum Take-Off Weight War-Time 16.0 k-lb
(External loading)

Maximum Landing Weight 13.8 k-lb

Hover Ceiling (In Ground Effect) 15,000 ft
(At 13.8 k-lb)

Hover Ceiling (Out of Ground Effect) 10,500 ft
(At 13.8 k-lb)

ACN

	Rigid Pavement Subgrades				Flexible Pavement Subgrades			
	High	Medium	Low	Ultra	High	Medium	Low	Very
Weight	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-500. Bell 214B, Big Lifter

ETL 1110-3-394
27 Sep 91

Aircraft Manufacturer Bell Helicopter

Aircraft Engine Manufacturer General Electric (CT7-2A)

No. of Engines 2 Engine Rating 1625 SHP

Minimum Take-Off Weight †

Maximum Take-Off Weight Peace-Time 17.5 k-lb

Maximum Take-Off Weight War-Time 17.5 k-lb

Maximum Landing Weight 17.5 k-lb

Hover Ceiling (In Ground Effect) 6,400 ft

Hover Ceiling (Out of Ground Effect) 1,000 ft

ACN

	<u>Rigid Pavement Subgrades</u>				<u>Flexible Pavement Subgrades</u>			
	High	Medium	Low	Ultra	High	Medium	Low	Very
<u>Weight</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>

Note: The relative structural effect of an aircraft is not expressed for a skid equipped helicopter. This aircraft may damage AC pavement surfaces during hot weather.

Figure A-501. Bell 214ST, Super Transport